

WHAT IS CLAIMED IS:

1. A vacuum enabled casting system for filling preforms comprising:

a tank for holding a material for filling the preforms;

an autoclave for containing the preforms that are to be filled with the material held in said tank; and

a common vacuum system interconnected to said tank and said autoclave for causing the material held in said tank to flow to said autoclave through piping interconnecting said tank and said autoclave to fill the preforms contained therein.

2. The casting system as claimed in claim 1, wherein said tank is disposed above said autoclave.

3. The casting system as claimed in claim 1, further comprising a ball mill for preparing the material held in said tank, said ball mill and said tank being interconnected through second piping and a pump, said pump being utilized to transfer the material through the second piping to said tank.

4. The casting system as claimed in claim 1, further comprising a pinch valve disposed within the piping interconnecting said tank and said autoclave for controlling the flow of the material from said tank to said autoclave.

5. The casting system as claimed in claim 2, further comprising a pinch valve disposed within the piping interconnecting said tank and said autoclave for controlling the flow of the material from said tank to said autoclave.

6. The casting system as claimed in claim 3, further comprising a pinch valve disposed within the piping interconnecting said tank and said autoclave for controlling the flow of the material from said tank to said autoclave.

7. The casting system as claimed in claim 1, wherein the material is resin.

8. The casting system as claimed in claim 2, wherein the material is resin.

9. The casting system as claimed in claim 4, wherein the material is resin.

10. The casting system as claimed in claim 1, wherein the material is slurry.

11. The casting system as claimed in claim 2 wherein the material is slurry.

12. The casting system as claimed in claim 3, wherein the material is slurry.

13. The casting system as claimed in claim 4 wherein the material is slurry.

14. The casting system as claimed in claim 1, further comprising a programmable control system for controlling and monitoring the flow of material between said tank and said autoclave.

15. The casting system as claimed in claim 1, wherein said programmable control system includes a plurality of remotely

located control stations for facilitating remote operator control of said casting system.

16. A method for filling preforms with casting material involves locating a tank above an autoclave connecting the tank and the autoclave to a common vacuum system and utilizing a combination of vacuum and gravity to cause the casting material to flow from the tank to fill preforms disposed in the autoclave.